Mathematics

Degree Type
Major

Program Goals for Mathematics

In order to provide high caliber instruction in the quantitative element of a liberal arts education, this programs offers majors in mathematics designed:

- To provide the student with a breadth of knowledge in the discipline of mathematics
- To provide the tools to assist the further study of mathematics or related disciplines
- To offer a sufficient depth of knowledge in order to prepare students for research in mathematics or related disciplines
- To prepare students for careers in education, in business, and in scientific, mathematical, or technical fields
- To provide a learning community supportive of collaboration in academics, social responsibility, and engaged teaching

Requirements for the Major

The student is required to take the following core courses:

Item #	Title	Credits
MATH 116	Introduction to Computer Algebra Systems	2
MATH 201	Calculus I	4
MATH 202	Calculus II	4
MATH 203	Calculus III	4
MATH 220	Introduction to Proofs and Abstract Thinking	2
MATH 354	Linear Algebra	3
MATH 373	Writing for Mathematics and Computer Science	2
MATH 400	Abstract Algebra	4
MATH 403	Introduction to Real Analysis	4
MATH 477	Seminar in Mathematics and Computer Science	2
MATH 495	Comprehensive Exams	
	MATH 326 or 410	3
MATH 490	Senior Project	2-4

In addition, each student must complete one of the following tracks:

Mathematics:

Item #	Title	Credits
CPSC 151	Computer Science I	4

A minimum of 12 credits from the following:

Item #	Title	Credits
MATH 210	Discrete Mathematics	3
MATH 310	Number Theory	3
MATH 326	Introduction to Modern Geometry	4
MATH 341	Differential Equations	3
MATH 383	Probability & Statistics I	3
MATH 384	Probability and Statistics II	3
MATH 390	Numerical Analysis	3
MATH 410	Topology	3
CPSC 152	Computer Science II	4

Mathematics-Actuarial Science:

Item #	Title	Credits
MATH 210	Discrete Mathematics	3
MATH 341	Differential Equations	3
MATH 383	Probability & Statistics I	3
MATH 384	Probability and Statistics II	3
MATH 390	Numerical Analysis	3
CPSC 151	Computer Science I	4

Mathematics-Computer Science:

Item #	Title	Credits
CPSC 151	Computer Science I	4
CPSC 152	Computer Science II	4
CPSC 275	Data Structures and Algorithms	3
CPSC 390	Numerical Analysis	3
MATH 210	Discrete Mathematics	3

Mathematics-Economics:

Item #	Title	Credits
MATH 210	Discrete Mathematics	3
MATH 383	Probability & Statistics I	3
MATH 384	Probability and Statistics II	3
ACCT 202	Financial Accounting	3
ECON 201	Principles of Microeconomics	3
ECON 202	Principles of Macroeconomics	3
ECON 301	Intermediate Microeconomics	3
ECON 302	Intermediate Macroeconomics	3
CPSC 151	Computer Science I	4

Mathematics-Physics:

Item #	Title	Credits
MATH 341	Differential Equations	3
PHYS 201	General Physics I	4
PHYS 202	General Physics II	4
	PHYS 251 or 261	3
PHYS 300	Modern Physics	3
CPSC 151	Computer Science I	4
		52-66